

We Claim:

1. A handheld camera, said camera comprising:
a sensor adapted to sense an image; and,
a processing system comprising:
a camera manager for controlling the sensing of the image;
an image processing manager for manipulating the image; and,
a print manager for controlling printing of the manipulated image.
2. A handheld camera as claimed in claim 1, the camera comprising a printer for printing the manipulated images on media dispensed from a print roll, the print manager being adapted to control the printer.
3. A handheld camera as claimed in claim 1, the camera further comprising a user interface having at least one user input and one user output, the processing system comprising a user interface manager for controlling the user interface.
4. A handheld camera as claimed in claim 3, the user interface manager being adapted to cooperate with the camera manager to allow images to be sensed in accordance with commands received via the user interface.
5. A handheld camera as claimed in claim 1, the processing system comprising a file manager, the file manager being adapted to control the storage of images in a storage device.
6. A handheld camera as claimed in claim 1, the camera further comprising an input for receiving predetermined data, the image processing manager being adapted to manipulate the images in accordance with the received predetermined data.
7. A handheld camera as claimed in claim 6, the processing system comprising an input controller, the input controller being adapted to control the input to thereby determine the predetermined data.
8. A handheld camera as claimed in claim 6, the input comprising a card reader having a card drive system for driving the card along a card path, and a card sensor extending across the width of the card path, the input controller being adapted to activate the card sensor and the drive system

to thereby detect the predetermined data as the card moves with respect to the card sensor.

9. A handheld camera as claimed in claim 8, the input controller being for:
determining a card image in accordance with signals received from the card sensor;

selectively rotating the card image; and,
converting the card image to determine the predetermined data.

10. A handheld camera as claimed in claim 9, the input controller being for selectively rotating the card image in accordance with skew of the card with respect to the card sensor.

11. A handheld camera as claimed in claim 9, the input controller being for:

decoding the card image to determine a decoded card image data;
converting the decoded card image into byte data;
unscrambling the byte data to determine the predetermined data; and,
performing error detection.

12. A handheld camera as claimed in claim 8, the camera comprising a card insertion sensor, the input controller being responsive to the card insertion sensor to activate the card drive system.

13. A handheld camera as claimed in claim 8, the camera comprising an ejection input, the input controller being adapted to activate the card drive system to thereby eject the card in response to activation of the ejection input.

14. A handheld camera as claimed in claim 1, the camera comprising a guillotine the print manager being adapted to activate the guillotine to cut media from the print roll.

15. A handheld camera as claimed in claim 14, the camera comprising a print roll sensor, the print manager being adapted to activate the guillotine in response to the print roll sensor adapted to detect an attempt to pull media from the camera.

16. A handheld camera as claimed in claim 14, the camera comprising a print roll drive system for dispensing the media along a print path, the printer being positioned in the print path, the print manager being adapted to activate the guillotine if the print roll sensor indicates media is being dispensed at a rate greater than that of the print roll drive system.

17. A handheld camera as claimed in claim 1, the camera comprising a housing adapted to receiving a print roll for dispensing media on which images are printed, the print roll comprising a print roll authentication chip comprising authentication information stored thereon, the print manager being adapted to:

authenticate the print roll in accordance with the authentication information; and,

print the image in accordance with a successful authentication.

18. A handheld camera as claimed in claim 17, the print manager being adapted to perform the authentication by:

generating a challenge;

transferring the challenge to the print roll authentication chip, the print roll authentication chip being responsive to the challenge to generate a response;

receiving said response; and,

authenticating the print roll in accordance with the response.

19. A method of operating a handheld camera, the method comprising:
causing a sensor adapted to sense an image; and,

causing:

a camera manager to control the sensing of the image;

an image processing manager to manipulate the image; and,

a print manager to control printing of the manipulated image.

20. A method as claimed in claim 19, the camera comprising a printer for printing the manipulated images on media dispensed from a print roll, the method comprising causing the print manager to control the printer.

21. A method as claimed in claim 19, the camera further comprising a user interface having at least one user input and one user output, the method comprising causing a user interface manager to control the user interface.

22. A method as claimed in claim 19, the camera further comprising an input for receiving predetermined data, the method comprising causing the image processing manager to manipulate the images in accordance with the received predetermined data.

23. A method as claimed in claim 22, the input comprising a card reader having a card drive system for driving the card along a card path, and a card sensor extending across the width of the card path, the method comprising causing the input controller to activate the card sensor and the drive system to thereby detect the predetermined data as the card moves with respect to the card sensor.

24. A method as claimed in claim 23, the method comprising causing the input control to:

- determine a card image in accordance with signals received from the card sensor;

- selectively rotate the card image; and,

- convert the card image to determine the predetermined data.

25. A method as claimed in claim 24, the method comprising causing the input controller to selectively rotate the card image in accordance with skew of the card with respect to the card sensor.

26. A method as claimed in claim 24, the method comprising causing the input controller to:

- decode the card image to determine a decoded card image data;

- convert the decoded card image into byte data;

- unscramble the byte data to determine the predetermined data; and,
- perform error detection.

27. A method as claimed in claim 19, the camera comprising a guillotine, the method comprising causing the print manager to activate the guillotine to cut media from the print roll.

28. A method as claimed in claim 27, the camera comprising a print roll sensor, the method comprising causing the print manager to activate the guillotine in response to the print roll sensor adapted to detect an attempt to pull media from the camera.

29. A method as claimed in claim 19, the camera comprising a housing adapted to receiving a print roll for dispensing media on which images are printed, the print roll comprising a print roll authentication chip comprising authentication information stored thereon, the method comprising causing the print manager to:

authenticate the print roll in accordance with the authentication information; and,

print the image in accordance with a successful authentication.

30. A method as claimed in claim 29, the method comprising causing the print manager to perform the authentication by:

generating a challenge;

transferring the challenge to the print roll authentication chip, the print roll authentication chip being responsive to the challenge to generate a response;

receiving said response; and,

authenticating the print roll in accordance with the response.